



UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300



Photometric Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-2002

Prepared For
Auroralight Inc

2742 Loker Avenue West
Carlsbad
CA, 92010
United States

Catalog Number

HPL8-3-27

Order Number

11745044

Test Number

11745044.23

Test Date

2017-05-17

Prepared By

Javier Caban, Technician

Approved By

Tiffany Hamm, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Conical 8" copper shade with clear glass lens, cylindrical copper stem and brass base
Lamp: 64 white LEDs
Mounting: Path/Area
Ballast/Driver: Integrated

Luminaire



Luminaire Characteristics

Luminous Diameter: 8.00 in.

Summary of Results

Roadway Classification: Type V, Very Short
Cutoff Classification: Semicutoff
BUG Rating: B0 U1 G0

Test Conditions

Test Temperature: 25.6 °C
Voltage: 12.00 VAC
Current: 0.4967 A
Power: 3.346 W
Power Factor: 0.561
Frequency: 60 Hz
Current THD: 78.3 %

Tested in 30 planes left side, 30 planes right side, left and right averaged
Vertical test increments are 2.5 degrees
Test distance exceeds five times the greatest luminous opening of luminaire

Laboratory results may not be representative of field performance
Ballast factors have not been applied



Distribution - Goniophotometer

Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.6 °C	12.00 VAC	0.4967 A	3.346 W	0.561	60 Hz	78.3 %

Summary of Results

Spacing Criteria

0-180: 1.28

90-270: 1.28

Total Lumen Output:

175.3 Lumens

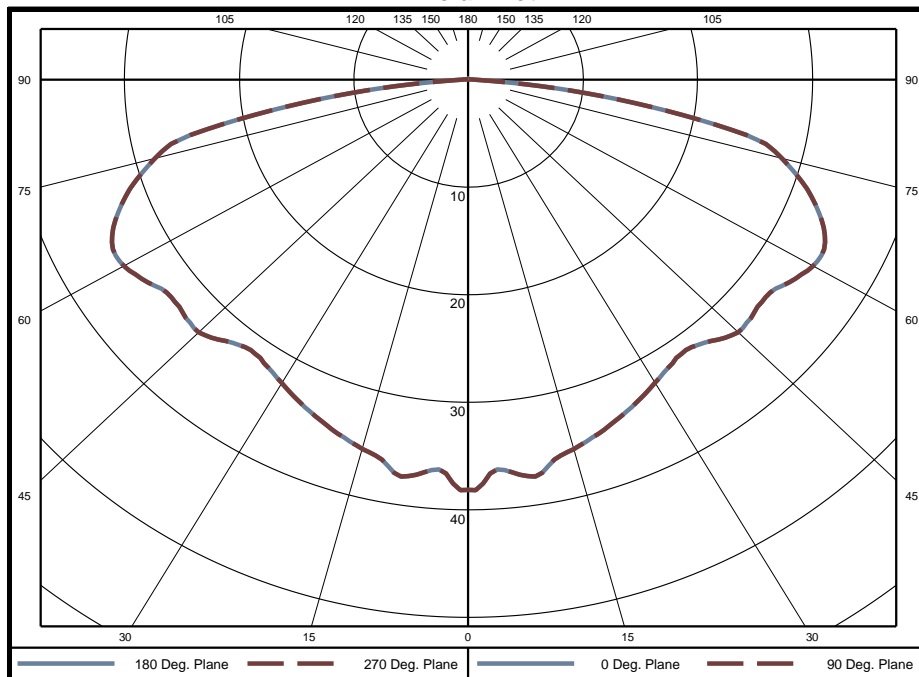
Luminaire Efficacy:

52.4 lm/w

Maximum Candela:

38 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.88	0.5%	60-65	16.86	9.6%	120-125	0.02	0.0%
5-10	2.65	1.5%	65-70	16.77	9.6%	125-130	0.02	0.0%
10-15	4.28	2.4%	70-75	15.73	9.0%	130-135	0.02	0.0%
15-20	5.78	3.3%	75-80	13.30	7.6%	135-140	0.02	0.0%
20-25	7.16	4.1%	80-85	6.42	3.7%	140-145	0.02	0.0%
25-30	8.37	4.8%	85-90	0.96	0.5%	145-150	0.02	0.0%
30-35	9.44	5.4%	90-95	0.19	0.1%	150-155	0.02	0.0%
35-40	10.56	6.0%	95-100	0.07	0.0%	155-160	0.01	0.0%
40-45	12.09	6.9%	100-105	0.05	0.0%	160-165	0.01	0.0%
45-50	13.38	7.6%	105-110	0.04	0.0%	165-170	0.01	0.0%
50-55	14.34	8.2%	110-115	0.03	0.0%	170-175	0.00	0.0%
55-60	15.76	9.0%	115-120	0.02	0.0%	175-180	0.00	0.0%

Zone	Lumens	% of Luminaire
0-40	49	28.0%
0-60	105	59.7%
0-90	175	99.7%
90-180	1	0.3%



Candela Tabulation

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
	0	38.15	38.15	38.15	38.15	38.15	38.15	38.15	38.15	38.15	38.15	38.15	38.15	38.15	38.15	38.15
	5	36.45	36.45	36.45	36.45	36.45	36.45	36.45	36.45	36.45	36.45	36.45	36.45	36.45	36.45	36.45
	10	37.13	37.13	37.13	37.13	37.13	37.13	37.13	37.13	37.13	37.13	37.13	37.13	37.13	37.13	37.13
	15	35.57	35.57	35.57	35.57	35.57	35.57	35.57	35.57	35.57	35.57	35.57	35.57	35.57	35.57	35.57
	20	34.65	34.65	34.65	34.65	34.65	34.65	34.65	34.65	34.65	34.65	34.65	34.65	34.65	34.65	34.65
	25	33.63	33.63	33.63	33.63	33.63	33.63	33.63	33.63	33.63	33.63	33.63	33.63	33.63	33.63	33.63
	30	32.54	32.54	32.54	32.54	32.54	32.54	32.54	32.54	32.54	32.54	32.54	32.54	32.54	32.54	32.54
	35	31.59	31.59	31.59	31.59	31.59	31.59	31.59	31.59	31.59	31.59	31.59	31.59	31.59	31.59	31.59
	40	31.95	31.95	31.95	31.95	31.95	31.95	31.95	31.95	31.95	31.95	31.95	31.95	31.95	31.95	31.95
	45	33.24	33.24	33.24	33.24	33.24	33.24	33.24	33.24	33.24	33.24	33.24	33.24	33.24	33.24	33.24
	50	32.87	32.87	32.87	32.87	32.87	32.87	32.87	32.87	32.87	32.87	32.87	32.87	32.87	32.87	32.87
	55	33.40	33.40	33.40	33.40	33.40	33.40	33.40	33.40	33.40	33.40	33.40	33.40	33.40	33.40	33.40
	60	34.66	34.66	34.66	34.66	34.66	34.66	34.66	34.66	34.66	34.66	34.66	34.66	34.66	34.66	34.66
	65	34.25	34.25	34.25	34.25	34.25	34.25	34.25	34.25	34.25	34.25	34.25	34.25	34.25	34.25	34.25
	70	31.79	31.79	31.79	31.79	31.79	31.79	31.79	31.79	31.79	31.79	31.79	31.79	31.79	31.79	31.79
	75	28.27	28.27	28.27	28.27	28.27	28.27	28.27	28.27	28.27	28.27	28.27	28.27	28.27	28.27	28.27
	80	18.96	18.96	18.96	18.96	18.96	18.96	18.96	18.96	18.96	18.96	18.96	18.96	18.96	18.96	18.96
	85	5.11	5.11	5.11	5.11	5.11	5.11	5.11	5.11	5.11	5.11	5.11	5.11	5.11	5.11	5.11
	90	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
	95	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
	100	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	105	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
	110	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	115	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	120	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	125	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	130	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	135	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	140	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	145	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	150	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	155	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	160	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	165	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
	170	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	175	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	180	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	1177	1177
	45	1449	1449
	55	1796	1796
	65	2499	2499
	75	3368	3368
	85	1809	1809



Utilization of Lumens - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%																	
Ceiling Cavity Reflectance	80				70				50			30			10		
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																
0	209	209	209	209	204	204	204	204	194	194	194	186	186	186	178	178	178
1	184	173	163	155	179	169	160	152	161	154	147	154	148	142	147	142	138
2	163	145	130	117	158	141	127	116	135	123	113	129	119	110	123	115	107
3	146	123	106	92	141	120	104	91	115	101	89	109	97	87	104	94	86
4	132	107	88	74	127	104	87	74	99	84	73	95	82	71	91	79	70
5	120	94	75	62	116	92	74	61	87	72	61	84	70	60	80	68	59
6	110	83	65	53	106	81	65	52	78	63	52	75	61	51	72	60	50
7	101	75	57	45	98	73	57	45	70	55	45	67	54	44	65	53	44
8	94	68	51	40	91	66	51	40	64	49	39	61	48	39	59	47	39
9	88	62	46	35	85	61	45	35	58	45	35	56	44	35	54	43	34
10	82	57	42	32	80	56	41	32	54	41	31	52	40	31	50	39	31

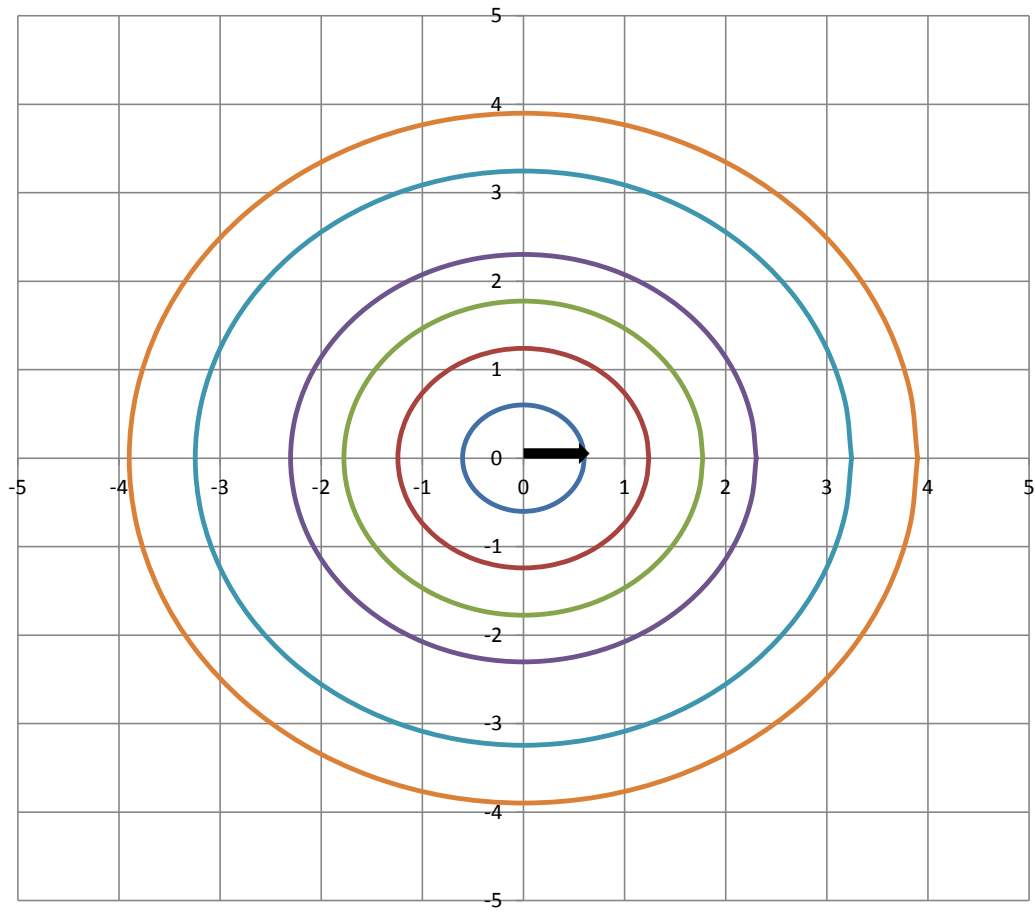
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	38.15 Candela
Central Cone Intensity:	37 Candela
Beam Flux:	167.2 Lumens
Beam Angle (0-180):	159.9 Degrees
Beam Angle (90-270):	159.9 Degrees
Field Angle (0-180):	171.1 Degrees
Field Angle (90-270):	171.1 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		2.38	5.14
6.00		1.06	7.70
8.00		0.596	10.3
10.0		0.382	12.8
12.0		0.265	15.4
14.0		0.195	18.0
16.0		0.149	20.5



ISOFootcandle Plot

Mounting Height - 2 Feet



Grid Lines in Units of Mounting Height





IES "BUG" Rating
(Back Light, Uplight, Glare)
Per IES TM-15-11



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	14.6	8.3%
FM	(30-60)	37.7	21.5%
FH	(60-80)	31.3	17.8%
FVH	(80-90)	3.8	2.2%
BL	(0-30)	14.6	8.3%
BM	(30-60)	37.7	21.5%
BH	(60-80)	31.3	17.8%
BVH	(80-90)	3.8	2.2%
UL	(90-100)	0.3	0.2%
UH	(100-180)	0.3	0.2%
Total		175.4	100.0%
BUG Rating	B0 U1 G0		